

HOLD DOWNS used to Secure Cargo

Weight Load Limit

How many tie-downs are needed for articles not blocked or positioned to prevent movement?

- Use 1 tie-down for articles 5-feet long or less and 1100 pounds or less.
- Use 2 tie-downs for articles 5-feet long or less and more than 1100 pounds.
- Use 2 Tie-downs for articles longer than 5-feet but less or equal to 10-feet.
- Use 1 tie-down for every 10 linear feet or fraction thereof for articles greater than 10 feet long.

WLL (working load limit) is based on width of unmarked web.

- 1-inch = 1000 pounds
- 1.75-inches = 1750 pounds
- 2-inches = 2000 pounds
- 3-inches = 3000 pounds
- 4-inches = 4000 pounds

When should damaged web-strap be taken out of service?

- Two criteria used to determine:

Width of Webbing	Size of Damage
1.75 inches	larger than 3/8 inch
2.0 inches	larger than 3/8 inch
3.0 inches	larger than 5/8 inch
4.0 inches	larger than 3/4 inch

Working Load Limit for Rope



Type of Material	Rope Diameter (inches)					
	3/8	7/16	1/2	5/8	3/4	1
	Working Load Limit (pounds)					
Manila	205	265	315	465	640	1050
Polypropylene Fiber	400	525	625	925	1275	2100
Polyester Fiber	555	750	960	1500	1880	3300
Nylon	278	410	525	935	1420	2520
Double Braided Nylon	336	502	655	1130	1840	3250

Chains: Working Load Limits

(pounds)

~ Chains ~

Chain Link Diameter (inches)	----- Working Load Limit (pounds) -----				
	Unmarked or Grade 30	Grade 40	Grade 70	Grade 80	Grade 100
1/4	1,300	2,600	3,150	3,500	4,300
5/16	1,900	3,900	4,700	4,500	5,700
3/8	2,650	5,400	6,600	7,100	8,800
7/16	3,700	7,200	8,750not available.....	
1/2	4,500	9,200	11,300	12,000	15,000
5/8	6,900	13,000	15,800	18,100	22,600